Title: "GRAPHIC ENGINE FOR APPROXIMATING A QUADRATIC BEZIER CURVE IN A RESOURCE-CONSTRAINED DEVICE"

Inventor(s): Jiangen Cao and Dongren Chen ARC-P121 1/12

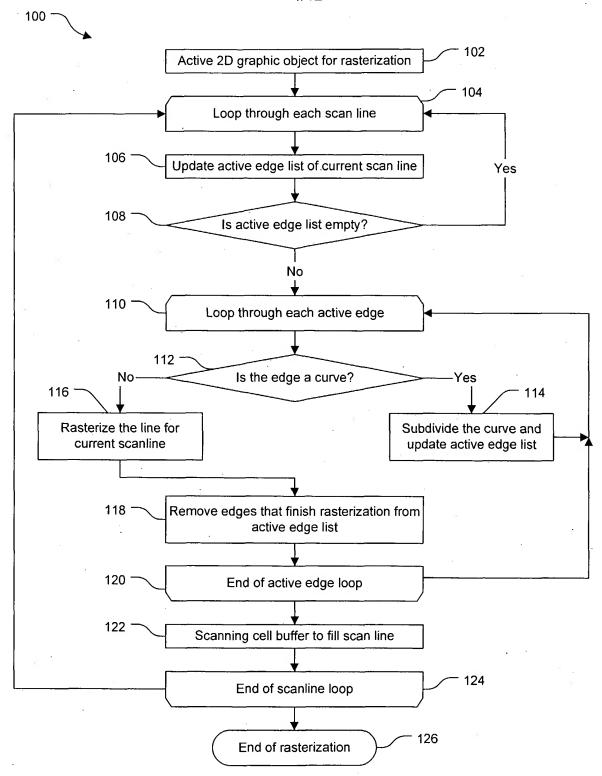


Fig. 1

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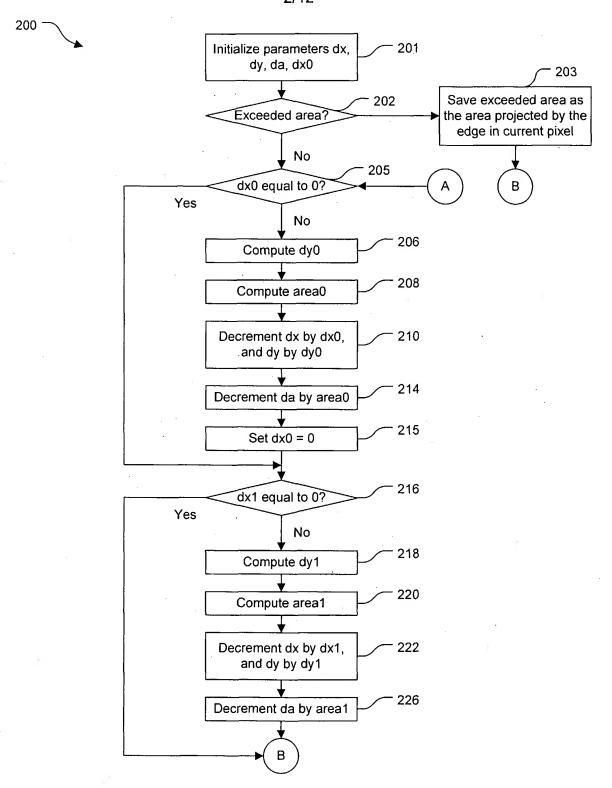


Fig. 2A

Title: "GRAPHIC ENGINE FOR APPROXIMATING A QUADRATIC BEZIER CURVE IN A RESOURCE-CONSTRAINED DEVICE" Inventor(s): Jiangen Cao and Dongren Chen ARC-P121

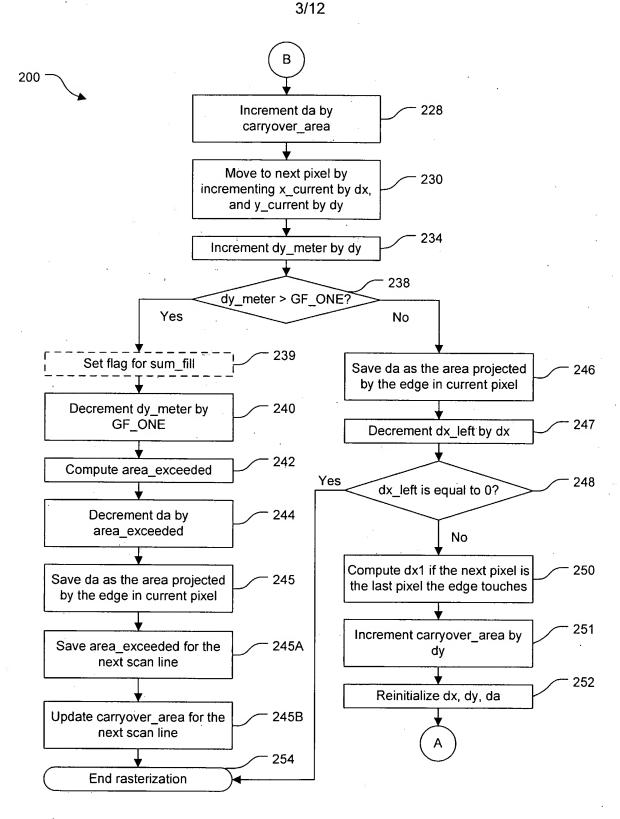
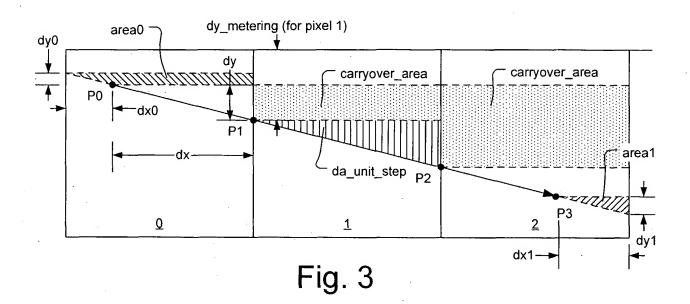


Fig. 2B

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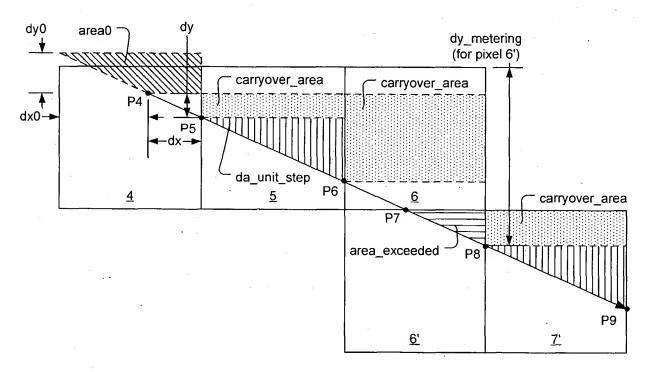


Fig. 4

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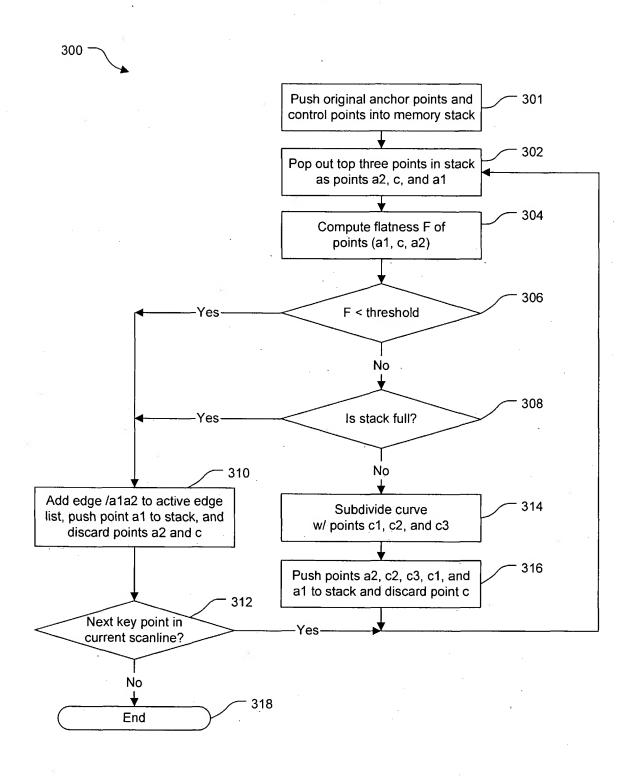


Fig. 5

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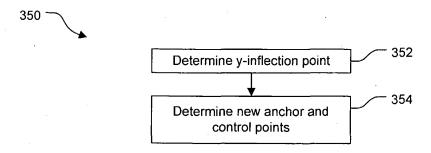


Fig. 6

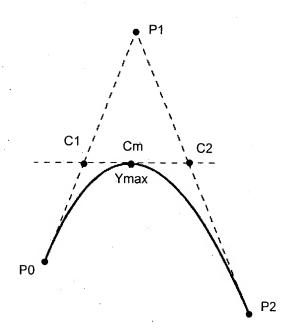
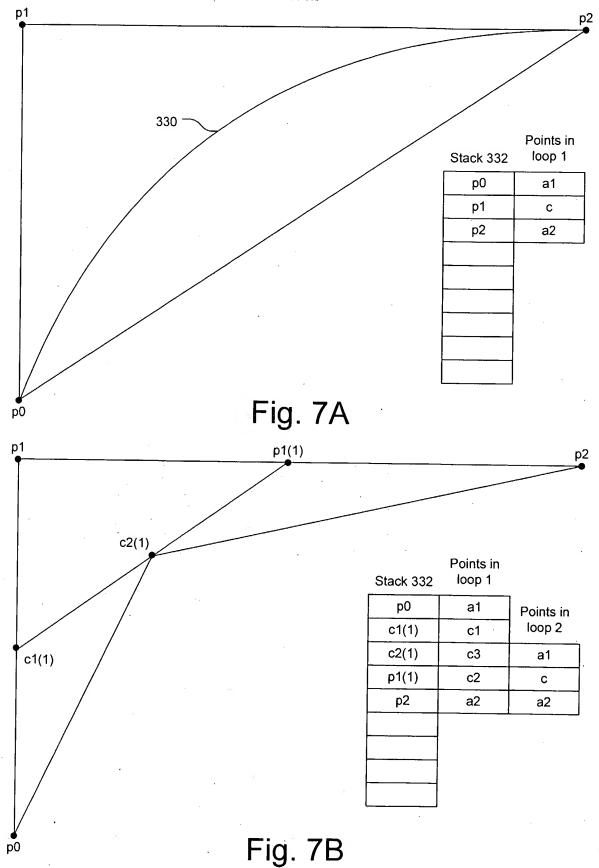


Fig. 6A

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ARC-P121 7/12



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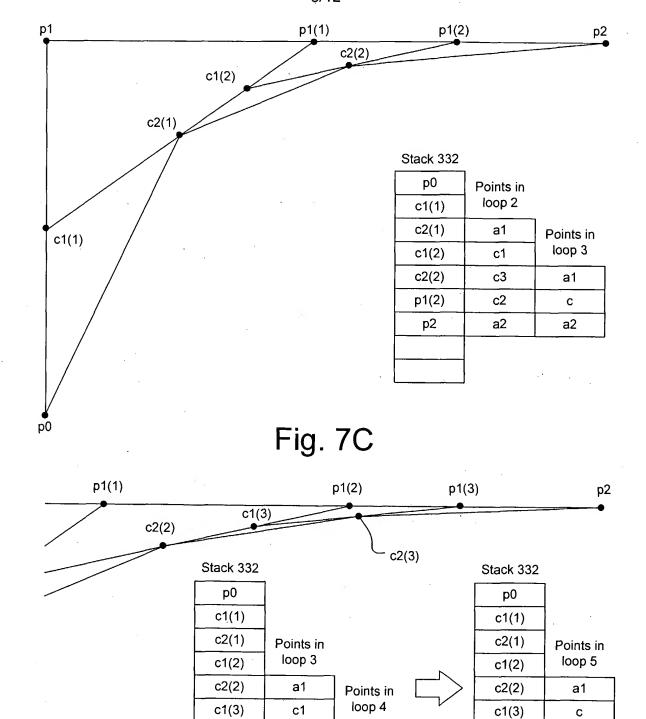


Fig. 7D

a1

С

с3

c2

a2

c2(3)

p1(3)

p2

С

a2

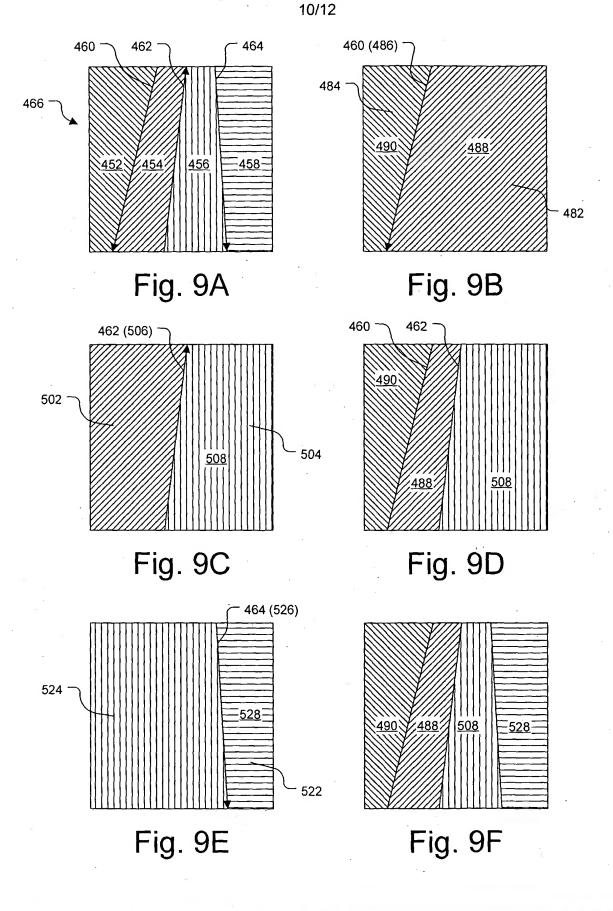
c2(3)

Title: "GRAPHIC ENGINE FOR APPROXIMATING A QUADRATIC BEZIER CURVE IN A RESOURCE-CONSTRAINED DEVICE" Inventor(s): Jiangen Cao and Dongren Chen ARC-P121

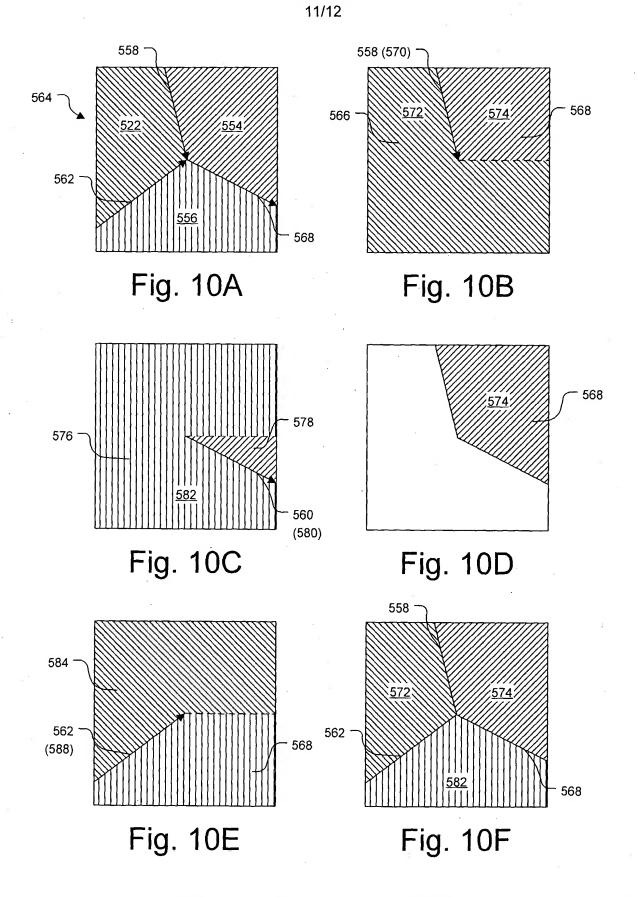
9/12 400 401 Receive fill styles and projected area 401A Determine sum_fill 404 Crerate sub-region 402 R (f, unit_area - prj) Is cell empty? Yes and sub-region R' (fr, prj) No 406 Find sub-region R that matches f,? Yes 408 410 Create sub-region Add (unit_area - prj) to R (f, unit_area - prj) area of sub-region R Modular the area of 412 sub-region R by unit_area 414 Find sub-region R' that matches f,? Yes 416 Create sub-region Add prj to 418 R' (f_r, prj) area of sub-region R' Modular the area of 420 sub-region R' by unit_area End

Fig. 8

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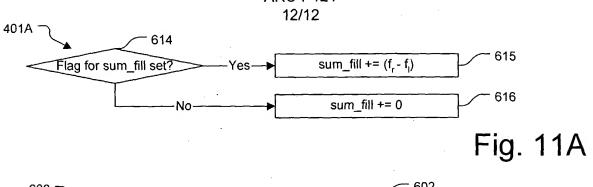


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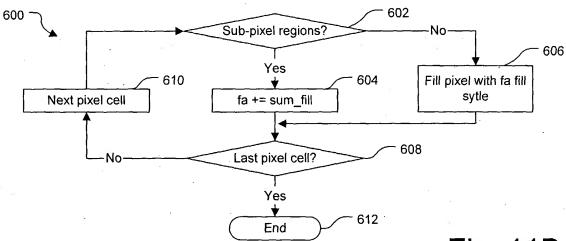


Fig. 11B 2 6 8 632B 624 - 628 618 V fO f0 f0 f0 626 630 632A 630 f0, a0 f1, a2 f2, a5 f3, a8 f1, a1 f0, a3 f0, a6 f0, a9 f2, a4 f3, a7 sum_fill sum_fill sum_fill sum_fill = f1= f2 - f1= f0 - f2= 0

Fig. 12

fa = f2

fa = f2

fa = f0

fa = f0

fa = f0

fa = f1

fa = f1

fa = f1